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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,297	08/13/2001	Kia Silverbrook	360040	6041

7590 05/21/2004  
KIA SILVERBROOK  
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EXAMINER

DO, AN H

ART UNIT PAPER NUMBER

2853

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/807,297

**Applicant(s)**

SILVERBROOK, KIA

**Examiner**

An H. Do

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 130-138 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 130-138 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

The Amendment filed on 12 February 2004 has been acknowledged.

#### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 130-137 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 6,273,544. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in both patent and instant application claiming the same subject matter of an inkjet printhead as shown in the following Claims Comparison Table:

**U.S. Application No. 09/807,297 CLAIMS**

1. An inkjet printhead having a series of nozzles for the ejection of ink from respective nozzle chambers wherein each said nozzle has a protruding rim formed from an overcoat layer deposited to conform on an uneven sacrificial layer and planar removal of part of said overcoat layer so as to form said nozzle rim, said sacrificial layer having been subsequent etched away to form said nozzle chambers.
2. An inkjet printhead as claimed in claims 1 wherein said planar removal comprises chemical - mechanical planarization of said rim material layer.
3. An inkjet printhead ms claimed in claim 2 wherein parts of said sacrificial layer are also removed by said planar removal.
4. An inkjet printhead as claimed in claim 1 wherein said planar removal process is an etching process.
5. An inkjet printhead as claimed in claim 1 wherein said overcoat layer comprises TEOS glass.
6. An inkjet printhead as claimed in claim 1 wherein said overcoat layer is PECVD Si<sub>3</sub>N<sub>4</sub>.
7. An inkjet printhead as claimed in claim 1 wherein said overcoat layer is MOCVD TiN.
8. An inkjet printhead as claimed in claim 1 wherein said overcoat layer is ECR CVD TiN.

**U.S. Patent No. 6,273,544 CLAIMS**

130. An inkjet printhead having a series of nozzles for the ejection of ink wherein each of said nozzles has a rim formed by the deposition of a rim material layer over a sacrificial layer and a subsequent planar removal of part of at least said rim material layer so as to form said nozzle rim.
131. An inkjet printhead as claimed in claims 130 wherein said planar removal comprises chemical - mechanical planarization of said rim material layer.
132. An inkjet printhead ms claimed in claim 131 wherein parts of said sacrificial layer are also removed by said planar removal.
133. An inkjet printhead as claimed in claim 130 wherein said planar removal process is an etching process.
134. An inkjet printhead as claimed in claim 130 wherein said rim material layer comprises TEOS glass.
135. An inkjet printhead as claimed in claim 130 wherein said rim material layer is PECVD Si<sub>3</sub>N<sub>4</sub>.
136. An inkjet printhead as claimed in claim 130 wherein said rim material layer is MOCVD TiN.
137. An inkjet printhead as claimed in claim 130 wherein said rim material layer is ECR CVD TiN.

3. Claim 138 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,273,544 in view of Silverbrook (WO 96/32808).

Claim 1 of U.S. Patent No. 6,273,544 discloses an inkjet printhead having a series of nozzles for the ejection of ink from respective nozzle chambers wherein each said nozzle has a protruding rim formed from an overcoat layer deposited to conform on an uneven sacrificial layer and planar removal of part of said overcoat layer so as to

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form said nozzle rim, said sacrificial layer having been subsequent etched away to form said nozzle chambers.

Claim 1 of U.S. Patent No. 6,273,544 fails to disclose the sacrificial layer is removed during production of the printhead, such that the nozzle rim defines a through hole.

However, Silverbrook teaches in Figure 1(b) the sacrificial layer is removed during production of the printhead, such that the nozzle rim (104) defines a through hole.

#### ***Response to Arguments***

4. Applicant's arguments with respect to claims 130-138 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

**Contact Information**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to An H. Do whose telephone number is 703-308-0525.

The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on 703-308-4896. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



AD  
May 17, 2004

  
Stephen D. Meier  
Primary Examiner